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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/701,297	11/03/2003	Stephen A. Grot	GROT-III	5255
26939 7590 03/20/2007 HUNTLEY & ASSOCIATES 1105 NORTH MARKET STREET P.O. BOX 948 WILMINGTON, DE 19899-0948			EXAMINER ECHELMAYER, ALIX ELIZABETH	
			ART UNIT 1745	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE			MAIL DATE	DELIVERY MODE
3 MONTHS			03/20/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/701,297

Applicant(s)

GROT, STEPHEN A.

Examiner

Alix Elizabeth Echelmeyer

Art Unit

1745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Response***

1. This Office Action is in response to the Remarks and Declaration under 37 C.F.R. 1.132 filed on December 22, 2006. The Declaration by Stephen A. Grot has been received and considered.
2. Claims 1-9 are pending and are rejected finally for the reasons given below.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Dhar (US Patent 5,318,863).

Regarding claim 1, Dhar teaches a membrane electrode assembly comprising a cast ionomer having catalyst layers is used in the center layer of the electrode assembly (column 3 lines 1-13; column 5 lines 18-50; column 7 lines 1-16).

As for claims 2 and 3, these claims contain product by process limitations. Since Dhar teaches the product of these claims and the product by process limitations are not considered to have patentable weight, Dhar anticipates these claims. MPEP 2113.

As for claim 4, Dhar teaches that the gasket contains a central hole (column 9 lines 41-55). Since the sealing material is made of a rubber, it is considered by the examiner to be in a solid state; thus, any part of the seal including the perimeter is solid.

Regarding claim 5, Dhar teaches that the gasket can be made of a polyimide material (column 10 lines 43-63).

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 6-9 rejected under 35 U.S.C. 103(a) as being unpatentable over Dhar in view of Morse et al. (US Patent 6,960,403).

The teachings of Dhar as discussed above are incorporated herein.

Dhar fails to teach the plurality of perforations and their sizes as well as the thickness of the sealing material as claimed in the instant application.

Morse et al. teach a bonded polyimide fuel cell. The polyimide layer contains a plurality of channels through it having diameters less than 10  $\mu\text{m}$  and a thickness of 25-50  $\mu\text{m}$ , stating that these dimensions are desirable (column 2 lines 51-65).

Generally, differences in ranges will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such ranges is

Art Unit: 1745

critical. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). In re Aller 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). In re Hoeschele, 406 F.2d 1403, 160 USPQ 809 (CCPA 1969).

Regarding the diameter of the plurality of perforations of claims 6 and 7, it has been determined that, since the specification does not provide sufficient information to explain why the range claimed is significant, and since the diameter taught by Morse et al. is very close to that of the instant claim, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the dimensions taught by Morse et al. in the cell of Dhar.

Regarding the thickness of the sealing material in claims 8 and 9, it has been held that when the difference between a claimed invention and the prior art is the range or value of a particular variable, then a prima facie rejection is properly established when the difference in the range or value is minor. Titanium Metals Corp. of Am. v. Banner, 778 F.2d 775, 783, 227 USPQ 773, 779 (Fed. Cir. 1985).

### ***Response to Arguments***

7. Applicant's arguments filed December 22, 2006 have been fully considered but they are not persuasive.

Applicant argues that Dhar does not teach the membrane preparation techniques of the present invention. As discussed in the rejection above, those limitations in the instant claims are viewed as product-by-process limitations.

Applicant has provided a declaration under 37 C.F.R. 1.132 in an attempt to demonstrate that the preparation techniques of the instant invention are superior to those of Dhar.

The declaration has been considered by the examiner but the examiner has found that it is not sufficient to overcome the rejection.

In Section 2184 (III) of the MPEP, it is stated that:

***III. MERE ALLEGATIONS OF NONEQUIVALENCE ARE NOT SUFFICIENT***

In determining whether arguments or 37 CFR 1.132 evidence presented by an applicant are persuasive that the element shown in the prior art is not an equivalent, the examiner should consider and weigh as many of the above-indicated or other indicia as are presented by applicant, and should determine whether, on balance, the applicant has met the burden of proof to show nonequivalence. However, under no circumstance should an examiner accept as persuasive a bare statement or opinion that the element shown in the prior art is not an equivalent embraced by the claim limitation. Moreover, if an applicant argues that the "means" or "step" plus function language in a claim is limited to certain specific structural or additional functional characteristics (as opposed to "equivalents" thereof) where the specification does not describe the invention as being only those specific characteristics, the claim should not be allowed until the claim is amended to recite those specific structural or additional functional characteristics. Otherwise, a claim could be allowed having broad functional language which, in reality, is limited to only the specific structure or steps disclosed in the specification. This would be contrary to public policy of granting patents which provide adequate notice to the public as to a claim's true scope.

In this case, the declaration provides a photomicrograph (page 3 of the declaration) and alleges that this photomicrograph depicts the structure formed in Dhar. The examiner finds the picture to be unclear, and since there is no proof that this structure is produced by Dhar, the examiner cannot accept that this shows that the instant invention is nonequivalent to the prior art.

### ***Conclusion***

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alix Elizabeth Echelmeyer whose telephone number is 571-272-1101. The examiner can normally be reached on Mon-Fri 7-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's trainer, Susy N. Tsang-Foster can be reached on 571-272-1293. The fax phone

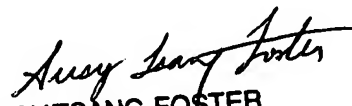
Art Unit: 1745

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Alix Elizabeth Echelmeyer  
Examiner  
Art Unit 1745

aee

  
SUSY TSANG-FOSTER  
PRIMARY EXAMINER